

## REMARKS

### Summary of Amendments and support

Claims 1-4 are amended. Claim 13 is canceled. Claims 14-21 are added. Claim 11 has additionally been amended to remain in condition for rejoinder, and for better compliance with 35 USC 112.

The phrase “amino acid residues linked by peptide bonds” in claim 1 and other claims containing the phrase is fairly supported by the specification as a whole in view of accepted definitions of peptides.

In claim 4, the phrase “animal immunized with the peptide” is fairly supported by page 6, line 15 (“ADESH causes the immunized animal to produce an antibody”). The phrase “blood serum, saliva and urine” is supported at page 7, lines 2-3. The phrase “animal immunized with SEQ ID NO: 1” is fairly supported by page 6, lines 14-19 in view of page 5, line 20 through page 6, line 14.

In claim 14, the phrase “peptide molecule” is supported at page 4, lines 13-14.

In claim 17, the phrase “beginning at the N-terminal” is fairly supported at page 4, lines 7-8 and elsewhere.

In claim 20, the phrase “group consisting of SEQ ID NO: 2 and a fragment of SEQ ID NO: 2 comprising SEQ ID NO: 4” is fairly supported by page 5, lines 1- 7.

### Status of claims

Claims 1-4 and 14-21 are pending. Claims 5-12 stand withdrawn by a restriction requirement which has been repeated and made final. Claims 5-7 and 11-12 stand in condition for rejoinder. Claim 13 has been canceled.

### Rejections under 35 USC 112, second paragraph

Claims 1-4 and 13 stand rejected under 35 USC 112, second paragraph, on the basis that a composition claim is indefinite without the recitation of at least two elements.

The rejection is traversed, but is obviated by the present amendment to claim 1. Claim 1 recites a "sequence" of amino acid residues. At least two are required to make a sequence. Claim 1 thus requires at least two elements. Claims 2-4 depend from claim 1. Claim 13 has been canceled. Reconsideration is requested.

New claim 14 is submitted not to be subject to the stated basis of rejection by virtue of its recitation of "a sequence".

Claims 17 and 20 are submitted not to be subject to the stated basis of rejection by virtue of avoiding the phrase "composition of matter".

Claims 1-4 and 13 stand further rejected under 35 USC 112, second paragraph, on the basis that "the claims are so open ended that they do not recite what the invention actually is. For instance, claim 1 recites "[a] composition of matter comprising a peptide consisting of at least the first five amino acids from the N-terminal of SEQ ID NO: 2 and no more than 25 amino acids total," thus although the peptide must be no more than 25 amino acids total, there is no limit to how large or small the "composition of matter," which encompasses the peptide, must be. In addition, the "composition of matter"

encompasses non-peptidic molecules such as polynucleotides, small inorganic molecules, large organic molecules or antibodies to name a few . . . ”

The rejection is traversed. The claim as structured encompasses compositions of matter which include an inventive peptide. The inventive peptide is particularly pointed out. Use of “comprising” does not render the claim in noncompliance with 35 USC 112, second paragraph, since the inventive peptide is particularly pointed out. Reconsideration and withdrawal of the rejection is requested.

Claim 14 is submitted not to be subject to the stated ground of rejection due to its recitation of “molecule”.

Claims 17 and 20 are submitted not to be subject to the stated ground of rejection due to the recitation of “A peptide”.

Claim 4 stands further rejected under 35 USC 112, second paragraph, as being indefinite “for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. First, the claim recites a ‘composition of matter as in claim 1 wherein the peptide produces an antibody . . . ’, however, it is not clear how the peptide ‘produces an antibody’. Second, which human body fluids and human origin eukaryotic cells are intended targets of the peptides? Third, claim 4 also recites ‘produced in immunological response to an NGF derived from venom’, but it is not clear how it is produced and by whom or what venom the NGF is derived from...”

The rejection is traversed but has been obviated by amendment of claim 4 to address all stated grounds of the rejection. Reconsideration is requested.

Rejections under 35 USC 102

Claims 1-4 and 13 stand rejected under 35 USC 102(b) for anticipation by Oldenberg et al, US 5,814,603 September 28, 1998. Claims 1-4 and 13 stand further rejected under 35 USC 102(b) for anticipation by Inoue et al., FEBS Lett: 1991; 279: 38-40. The rejections will be addressed together since the issues are essentially the same.

Oldenburg discloses a 35 amino acid residue protein sequence which includes SEQ ID NO: 4 embedded in the sequence. Inoue discloses a 116 amino acid residue protein sequence with SEQ ID NO: 4 embedded in the sequence.

Claim 1 as amended distinguishes each of the references by the recitation of "said peptide consisting of a sequence of no more than 25 amino residues".

Claim 2 further distinguishes each of the references by placing an upper limit of 15 amino acid residues on the peptide.

Claim 3 further distinguishes each of the references by requiring SEQ ID NO: 3 in the peptide.

Claim 4 further distinguishes each of the references by reciting a peptide property not disclosed by either of the references.

Claim 13 is canceled.

Claim 14 and its dependent claims distinguishes each of the references by the recitation of "peptide molecule consisting essentially of a sequence of no more than 25 amino acid residues."

Claim 17 and its dependent claims distinguishes each of the references by requiring that the peptide have "SEQ ID NO: 4 beginning at the N-terminal."

Claim 20 and its dependent claim distinguishes each of the references by being limited to peptides taken from a close ended Markush Group.

Conclusion

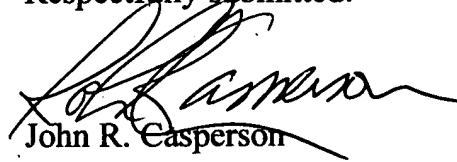
In view of the foregoing amendment and remarks, reconsideration and withdrawal of all grounds of rejection, rejoinder of claims 5-7 and 11-12 and early notice of allowance is solicited.

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